

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI  
HATTIESBURG DIVISION**

**WAYNE AND MARY GRAVES, FOR AND ON  
BEHALF OF W.A.G., A MINOR**

**PLAINTIFFS**

**VERSUS**

**CIVIL ACTION NO. 2:09cv169KS-MTP**

**TOYOTA MOTOR CORPORATION AND  
TOYOTA MOTOR SALES, USA, INC.**

**DEFENDANTS**

**MEMORANDUM OPINION AND ORDER**

This matter is before the court on Defendants' Sixth Motion *In Limine* to Exclude Opinions of Stephen Forrest on Restraint Systems and Biomechanics [#182]. The court having reviewed the motion, the response, the briefs of counsel, the authorities cited, the pleadings and exhibits filed, and being otherwise fully advised in the premises finds that the motion should be denied. The court specifically finds as follows:

This is a product liability action encompassing the commonly referred to rollover and roof crush claims. The accident occurred on December 31, 2008 on U.S. Highway 84 in Jones County, Mississippi. This single vehicle crash involved sixteen year-old W.A.G., who was operating a 1995 Toyota 4Runner. As W.A.G. approached the intersection of Highway 84 and Rose Lane, the physical evidence and eyewitness testimony establish that W.A.G. steered his vehicle to the left and that the vehicle began to yaw and then roll over multiple times. Although W.A.G. was wearing his seat belt and remained inside the vehicle during the rollover, as a result of the rollover and roof crush, W.A.G. was rendered quadriplegic.

Defendants Toyota Motor Corporation and Toyota Motor Sales, U.S.A., Inc. (“Toyota”), have moved this court *in limine* for an order barring Plaintiffs’ expert, Stephen Forest, from expressing opinions or making reference to motor vehicle restraint systems and biomechanics, including occupant kinematics, injury descriptions, and injury mechanisms, from *voir dire* to verdict. Toyota asserts that it anticipates that Plaintiffs’ expert, Stephen Forrest may reference and offer opinions regarding the design and performance of motor vehicle restraint systems, including the restraint system in the 1995 Toyota 4Runner at issue in this lawsuit. Toyota also anticipates that Mr. Forrest may reference or offer opinions regarding biomechanics. Biomechanics is the science concerned with internal and external forces acting on the human body and the effects produced by these forces. Biomechanical analysis generally includes opinions regarding occupant kinematics, injury analysis, and analysis of injury mechanisms. Toyota asserts that such opinions are not properly disclosed in his expert report and that Mr. Forrest has previously testified that he is not an expert in those areas.

The court notes that Toyota has chosen to attack Mr. Forrest’s opinions by way of an *in limine* motion rather than having filed a timely *Daubert* motion. This is true of many of the *in limine* motions that have been filed on behalf of Toyota. This practice violates the rules of this court regarding such motions to exclude expert testimony and is subject to denial for that reason alone. However, as with the other untimely motions to limit expert testimony styled as *in limine* motions, the court will delve into the merits of the motion to ascertain if there is any basis to support it.

Toyota asserts that none of Mr. Forrest’s statements in his expert report

expresses an opinion in regard to restraint systems or issues associated with biomechanics and that as such, Plaintiffs have violated their duty to disclose expert opinions pursuant to Rule 26(a)(2)(B) of the Federal Rules of Civil Procedure. Once again, this issue should have been presented in timely *Daubert* motion instead of on the eve of trial.

Plaintiffs respond that Toyota's argument that Mr. Forrest failed to disclose or rely upon any opinions regarding occupant kinematics or the restraint system in the subject 1995 Toyota 4Runner at issue in this lawsuit is patently false. In his expert report, Mr. Forrest opined, in part, as follows:

- "Defense experts also claim that higher speeds equate to a greater number of rolls and increased potential for injury. There is certainly an increased potential for injury in vehicles with poorly performing restraints and weak roofs, such as the subject vehicle .... Additionally, properly designed restraints will hold an occupant in place during the first roll, and will continue to retain the occupant in subsequent rolls if there is minimal roof deformation. However, as a weak roof deforms, the ability of the restraints to function properly is diminished. Poor or improperly performing restraints greatly affect the occupant injury potential. The forces generated by most rollovers are well within human tolerance if the occupant is properly restrained and the roof does not crush significantly into the occupant compartment. Rollovers can, however, be severely injurious to the occupants if the occupant protection system is inadequate. Rollovers become dangerous as a result of either whole or partial ejection of an occupant's body or excessive roof crush over an occupant."
- "The maximum static resultant roof crush at the driver side A-pillar (maximum crush) was determined to be approximately 10.5 inches (approximately 6.0 inches inward and approximately 8.0 inches downward). The maximum static resultant roof crush at the driver side B-pillar was determined to be approximately 7.0 inches (approximately 4.5 inches inward and approximately 4.5 inches downward). According to Dr. Bidez, [W.A.G.] received his injuries at a location near roof crush measurement point 13. The maximum static resultant roof crush at the point 13 was determined to be approximately 7.5 inches (approximately 4.5 inches inward and approximately 5.5 inches downward). In addition to

the maximum static resultant crush, there would have been approximately 20% of additional dynamic crush, for a total of approximately 12.6 inches of dynamic roof crush at the driver side A-pillar (maximum crush), 8.4 inches of dynamic roof crush at the driver side B-pillar, and 9.0 inches of dynamic crush at point 13 during the accident.

- “The restraints of the 1990- 1995 Toyota 4Runner are attached to the upper Bpillar at what is called a D-ring. Roof crush decreases the ability of this type of restraint to function as designed. When a vehicle rolls over and the roof crushes, the B-pillar generally deforms downward and inward. The D-ring assembly, which is attached to the B-pillar, also moves downward and inward, allowing a significant amount of slack to be added to the restraint system (See Figure 17). This would add additional slack to the driver’s restraint system due to the D-ring displacement.

According to the Plaintiffs, Mr. Forrest clearly articulated his opinions regarding the interplay between roof deformation, the seatbelt restraint system, and the occupant kinematics involved in the subject rollover case as stated by Dr. Martha Bidez. The court agrees. Therefore, Toyota’s argument that Mr. Forrest has failed to disclose these opinions and that Toyota would be “severely prejudiced” if forced to defend against these opinions is without merit. Additionally, defense counsel deposed Mr. Forrest in this matter on April 8, 2011 and had the opportunity to question Mr. Forrest about the opinions listed above, but apparently failed to do so. Defense counsel’s failure to inquire as to Mr. Forrest’s opinions regarding the relationship between roof deformation, the subject restraint system and/or the occupant kinematics involved in the subject rollover does not render Mr. Forrest’s opinions in these areas inadmissible.

Finally, Toyota contends that Mr. Forrest “admits” that he is not an expert in the areas of restraint systems and biomechanics. In support of this argument, Toyota solely relies on a “cherry-picked” excerpt from a deposition given by Mr. Forrest in an unrelated matter in 2007, that current Plaintiffs’ counsel was not present for, and did not have an opportunity to examine Mr. Forrest regarding his qualifications in these areas.

Once again, the court notes that Toyota did not file a timely *Daubert* motion challenging Mr. Forrest's expert qualifications in the areas of motor vehicle restraint systems or occupant kinematics.

From the evidence, it is apparent that Mr. Forrest does hold himself out as an expert in the areas of (1) automobile safety research and design; (2) occupant kinematics; (3) injury mechanism and mitigation; and, (4) structural design analysis. It is further clear that Mr. Forrest's primary focus in this case is the design, testing and performance of the roof in the subject 1995 Toyota 4Runner; however, Mr. Forrest's extensive experience in vehicle roof design and failure analysis appears to this court to render him sufficiently qualified to testify as to the effect of the roof deformation on the seatbelt restraint system/harness and the occupant kinematics in the subject rollover.

The United States District Court for the Middle District of Florida's opinion in *Tiller v. Ford Motor Co.*, 2006 WL 166530, No. 3:03-CV-489-J-32HTS, (M.D. Fla. Jan. 21, 2006), is instructive on this issue. In *Tiller*, the decedent, Clark Tiller, was traveling with his wife, Ann Tiller, on Interstate 95 in the southbound lane near Ridgeland, South Carolina, when the Tiller's 1995 Lincoln Town Car was struck from behind by a truck. As a result of the collision, the Tiller's Town Car rolled over. Clark Tiller died during the accident, and his wife brought suit alleging strict liability and negligence claims against Ford.

Tiller designated as one of her experts Larry Bihlmeyer, an engineer who worked for Ford from 1972-1986 as a product design and safety engineer. Bihlmeyer concluded that, according to generally accepted automobile manufacturing standards, the 1995 Town Car contained a number of design defects concerning the structural integrity of the roof and the resulting available survival space after a rollover accident,

similar to the conclusions reached by Mr. Forrest and Dr. Bidez in this case.

While Ford conceded that Bihlmeyer was competent to testify as to certain engineering issues, it filed a *Daubert* motion challenging Bihlmeyer's qualifications and scientific basis to testify on certain matters, including whether the driver side seatbelt was rendered ineffective because of the roof defects. Tiller responded that Bihlmeyer's extensive experience in vehicle roof failure analysis rendered him qualified to testify as to the effect of the roof deformation on the seatbelt harness. The district court agreed, holding that:

The safety restraint system in the Town Car is anchored to the roof of the vehicle. Thus, the effect of the roof's strength on the safety restraint system is a logical extrapolation of Mr. Bihlmeyer's testimony concerning overall roof integrity. The Court determines the proper course is to allow Mr. Bihlmeyer to testify to the effect of the roof strength on the safety restraint system, which will be undoubtedly subject to vigorous cross examination by defendant. *Id.* at \*7 (citing *McDowell v. Brown*, 392 F.3d 1283, 1299 (11<sup>th</sup> Cir. 2004)).

This court agrees entirely with the *Tiller* Court analysis. Toyota's untimely motion to exclude the testimony of Mr. Forrest on these issues shall be denied.

IT IS THEREFORE ORDERED AND ADJUDGED that Defendants' Sixth Motion *In Limine* to Exclude Opinions of Stephen Forrest on Restraint Systems and Biomechanics [#182] is denied.

SO ORDERED AND ADJUDGED this the 9th day of January, 2012.

*s/Keith Starrett*  
UNITED STATES DISTRICT JUDGE